

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

1. Amendments and Support for Same

By the Response, claims 1-9 have been amended to more particularly point out and distinctly claim the subject matter of the invention and to correct informalities as suggested by the Examiner. No new matter has been added. Accordingly, claims 1-9 are respectfully submitted for consideration. Approval and entry of the amendments are respectfully requested.

2. Objection to the Specification

With respect to the objection to the specification, Applicant submits herewith a substitute specification and marked-up specification showing corrections made in accordance with the PTO's guidelines of preferred layout of the specification and to correct all informalities noted by the Examiner. No new matter has been added. In view of the amendments to the specification, Applicant respectfully requests reconsideration and withdrawal of the objection to the specification.

3. Objection to the Drawings

In response to the objection to Figs. 20 and 23-25 not properly labeled as prior art, Applicant submits herewith replacement sheets for Figs. 20 and 23-25, as well as Figs. 21-22. In view of the amendments set forth above, Applicant respectfully requests reconsideration and withdrawal of the objection to the drawings.

4. Objection to the Claims

With respect to the objection to claims 2-9 as containing informalities, Applicant has amended claims 2-9 to correct all informalities noted by the Examiner where proper. In view of the amendments set forth above, Applicant respectfully requests reconsideration and withdrawal of the objection to claims 2-9.

5. Claim rejections under 35 U.S.C. §112, 2nd paragraph

With respect to the rejection of claim 4, Applicant has amended the claim to clarify that multiple bracket contacts are set at an edge of a bracket, such as supported in Figs. 14 and 19 of the present application showing contact points 3e disposed on a bottom face 3a' of bracket 3.

With respect to the rejection of claim 5, Applicant has amended claim 5, as well as claim 6, to provide proper antecedent basis for all of the claimed features. With respect to the Examiner being unclear of the language in claim 5, Applicant respectfully directs the Examiner's attention to a fourth embodiment described in the specification and its respective illustration in Figs. 15 and 16. Paragraph [0061] of the specification describes length direction L and width direction W, as well as positive and negative electrodes 18' and 19', respectively. Claim 5 is supported by Fig. 15, wherein positive and negative electrodes 18' and 19' that are in the same position in the length direction L. Claim 6 differs from claim 5 in that wherein positive and negative electrodes 18' and 19' that are in the different position in the length direction L, as supported by Fig. 16.

With respect to the rejection of claim 7, Applicant has amended claim 7 to provide proper antecedent basis for all of the claimed features. An embodiment of claim 7 is illustrated in, e.g. Fig. 17, and described in paragraph [0067]-[0071]. As amended, claim 7 recites a tab on the end of the housing that fits with the rim (e.g., 3b) and multiple first cut-outs in the rim that fit with the tab (e.g., 2c), wherein the multiple first cut-outs (e.g., 3c) being formed as a unit connected by a second cut-out (e.g., 3f) lower than a height of the multiple first cut-outs (3c).

With respect to the rejection of claim 8, Applicant has amended claim 8 to provide proper antecedent basis for all of the claimed features. Further, Applicant respectfully notes that the contacts are on the bracket, as clarified by the amended claim 8.

In view of the amendments and arguments set forth above, Applicant respectfully requests reconsideration and withdrawal of the §112, 2nd paragraph, rejections of claims 4, 5, 7, and 8.

6. Rejection under 35 U.S.C. §102(b)

With respect to the rejection of claims 1, 5 9/1 and 9/5 under 35 U.S.C. §102(b) as being anticipated by Maeda (US 6,590,991), Applicant respectfully traverses the rejection at least for the reason that Maeda fails describe each and every limitation recited in the rejected claims.

The present invention is directed to a structure for mounting a multifunctional vibrating actuator to a circuit board. The structure includes a bracket configured to be fixed to a circuit board via solder reflow, for example, so as to allow subsequent mounting of multifunctional vibrating actuator to the circuit board.

Due to high temperature of solder reflow process, the multifunctional vibrating actuator is detachable from the bracket so as to allow the bracket to be fixed to the circuit prior to mounting the multifunctional vibrating actuator to the circuit board via the bracket. By such a configuration, the multifunctional vibrating actuator avoids being subjected to stress, misalignment, damages, etc. that may be caused if the multifunctional vibrating actuator was fixed to the circuit board and subjected to high temperature solder reflow process.

In the rejection of claims 1 and 5, the Examiner contends that main body case 10 of Maeda is equivalent to Applicant's housing that is included with the multifunctional vibrating actuator. The Examiner further contends that bottom plate 12 of Maeda is equivalent to Applicant's claimed bracket. In response, Applicant respectfully submits that there is no teach, disclosure, or suggest that the bottom plate 12 of Maeda allows the housing or main body case 10 of the sound-vibration generator 20 to be detached from the bottom plate 12. Further, it appears that the bottom plate 12 is required to be fixed to the main body case 10

and that the assembly is to be mounted together, as described in col. 11, line 50 to col. 12, line 5 of Maeda. Hence, as in conventional design and technique, the sound-vibration generator of Maeda is also exposed to stress, misalignment, etc., when wiring board 21 with the sound-vibration generator 20 is subjected to high temperature solder reflow process.

Consequently, since each and every feature of the present claims is not taught (and is not inherent) in Maeda, as is required by MPEP Chapter 2131 in order to establish anticipation, the rejection of claims 1, 5 9/1 and 9/5, under 35 U.S.C. §102(b), as anticipated by Maeda is improper.

In view of the amendment and arguments set forth above, Applicant respectfully requests the Examiner to consider Maeda in its entirety as set forth in MPEP 2141.02(VI), and Applicant respectfully requests reconsideration and withdrawal of the §102(b) rejection of claims 1, 5 9/1 and 9/5.

7. Rejections under 35 U.S.C. §103(a)

With respect to the rejection of claims 2, 6, 9/2 and 9/6 under 35 U.S.C. §103(a) as being unpatentable over Maeda, to the rejection of claims 3, 4, 8, 9/3, 9/4, and 9/8 as being unpatentable over Maeda in view of Hatanaka (US 6,229,249), to the rejection of claims 7 and 9/7 as being unpatentable over Maeda in view of Kaneda (US 6,807,282), Applicant respectfully traverses the rejection at least for the reason set forth above in relation to the §102(b) rejection of claim 1 and 5.

Similar to Maeda, Hatanaka's surface-mount type crystal oscillator and Kaneda's electromagnetic induction type actuator device and mounting structure also fail to teach, disclose, or suggest a multifunctional vibrating actuator detachable from a bracket and configured to be mounted on a circuit board using the bracket after the bracket is fixed to the circuit board, as recited in amended claims 2, 3, 4, 6, 7, 8, and 9. Such a configuration is to avoid exposing the multifunctional vibrating actuator to solder reflow.

As discussed above, due to high temperature of solder reflow process, the multifunctional vibrating actuator of the presently claimed invention is detachable from the bracket so as to allow the bracket to be fixed to the circuit prior to mounting the

multifunctional vibrating actuator to the circuit board via the bracket. By such a configuration, the multifunctional vibrating actuator avoids being subjected to stress, misalignment, damages, etc. that may be caused if the multifunctional vibrating actuator was fixed to the circuit board and subjected to high temperature solder reflow process. Applicant respectfully assert that, similar to Maeda, Hatanaka and Kaneda also fails to teach, disclose, or suggest such an issue and how to overcome the problems of subjecting the device to high temperature reflow with a mounting structure.

The requirements for establishing a *prima facie* case of obviousness, as detailed in MPEP § 2143 - 2143.03 (pages 2100-122 - 2100-136), are: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine the teachings; second, there must be a reasonable expectation of success; and, finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations.

Further, according to MPEP §2141(I), Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court and by the Congress is applied in each and every case. The Supreme Court in *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966), stated:

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

Moreover, according to MPEP §2141(II), when applying 35 U.S.C. §103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be considered as a whole;
- (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and

(D) Reasonable expectation of success is the standard with which obviousness is determined.

As Maeda, Hatanaka, and Kaneda, combined or separately, fail to teach, disclose, or suggest a multifunctional vibrating actuator detachable from a bracket and configured to be mounted on a circuit board using the bracket after the bracket is fixed to the circuit board, the §103(a) rejections are improper.

In view of the amendment and arguments set forth above, Applicant respectfully requests reconsideration and withdrawal of the §103(a) rejection of claims 2, 3, 4, 6, 7, 8, and 9.

8. Conclusion

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-9 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's representative, the Examiner is invited to contact the undersigned at the numbers shown.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-4525.

Respectfully submitted,

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